

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:04

First Dose M/F: NA / NA

Lab: NIEHS

C Number: C92004
Lock Date: Not Entered.
Cage Range: All
Date Range: All
Reasons For Removal: All
Removal Date Range: All
Treatment Groups: All
Study Gender: Both
PWG Approval Date NONE

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* Total animals with tissue examined microscopically: Total animals with tumor

M .. Missing tissue

† Tissue examined microscopically.

A. Autolysis precludes evaluation

X - Lesion present

BLANK - Not examined microscopically

I Insufficient tissue

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Lab: NIEHS

F 344/N Rat Male
07M

	DAY ON TEST	0																							
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ANIMAL ID	7	6	7	7	7	7	7	4	7	6	7	7	6	7	7	7	5	5	7	7	6	6	7	7	5
	7	3	1	7	1	8	1	1	8	7	6	1	5	6	2	6	3	0	6	6	3	0	8	1	1

Brain

Brain, Cerebellum

Respiratory System

Lung

+ +

X

Alveolar/Bronchiolar Adenoma

Alveolar/Bronchiolar Carcinoma

Squamous Cell Carcinoma

X

Special Senses System

NONE

Urinary System

Kidney

+ +

Urinary Bladder

+ M + M + + + + + + + + + + +

SYSTEMIC LESIONS

Multiple Organ

+ +

Leukemia Mononuclear

X X

Mesothelioma Malignant

X

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

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**F 344/N Rat Male
07M**

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7 7 7 7 7 6 7 7 7 4 6 7 5 7 5 7 6 6 4 7 6 5 7 7 7 7 6 7 7 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 2 2 0 0 2 1 2 2 5 3 0 7 2 4 2 0 0 8 2 2 8 2 2 2 2 5 2 2 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 8 8 9 1 4 2 7 7 0 9 1 5 6 1 1 4 9 5 5 4 3 8 9 9 1 9 1 9 9 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | |

Alimentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Liver | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hepatocellular Adenoma | | | | | | | | | | | | | | | | | | | | | | | | X | | |
| Hepatocellular Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Mesentery | | | | | | | | + | | | | | | | | | | | | | | | | | | |
| Lipoma | | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Pancreas | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + |
| Stomach, Forestomach | | | | | | | | + | | | | | | | | | | | | + | + | | | | | |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tongue | | | | | | | | | + | | | | | | | | | | | | | | | | | |
| Squamous Cell Papilloma | | | | | | | | | | X | | | | | | | | | | | | | | | | |

Cardiovascular System

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Heart | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Schwannoma Malignant | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| Endocrine System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Bilateral, Pheochromocytoma Benign | | | | | | | | X | | | | | | | | | | X | | | | | | | | |
| Pheochromocytoma Benign | | | | | | | | | X | | | | | | | | | | X | X | | | | | | |
| Pheochromocytoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | X | X | |

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

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**F 344/N Rat Male
07M**

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | 7 7 7 7 7 6 7 7 7 4 6 7 5 7 5 7 6 6 4 7 6 5 7 7 7 7 6 7 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 2 2 0 0 2 1 2 2 5 3 0 7 2 4 2 0 0 8 2 2 8 2 2 2 2 5 2 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 8 8 9 1 4 2 7 7 0 9 1 5 6 1 1 4 9 5 5 4 3 8 9 9 1 9 1 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Islets, Pancreatic Adenoma | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Parathyroid Gland Adenoma | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Pituitary Gland | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Adenoma | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | |
| C Cell, Adenoma | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | |
| General Body System | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Peritoneum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Genital System | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Penis | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Preputial Gland | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Adenoma | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Seminal Vesicle | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Testes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Bilateral, Interstit Cell, Adenoma | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Interstit Cell, Adenoma | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic System | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | |

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

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**F 344/N Rat Male
07M**

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|-------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | 7 7 7 7 7 6 7 7 7 4 6 7 5 7 5 7 6 6 4 7 6 5 7 7 7 7 7 6 7 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 2 2 0 0 2 1 2 2 5 3 0 7 2 4 2 0 0 8 2 2 8 2 2 2 2 5 2 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 8 8 9 1 4 2 7 7 0 9 1 5 6 1 1 4 9 5 5 4 3 8 9 9 9 1 9 1 9 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | + + + + + + + M + | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric | + + + + + + + M + | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | + + + + + + + M + | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Osteosarcoma | + + + + + + + M + | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus | M + + + M M + + + M + + M + + M M M M + M + + + M M + + | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymoma Benign | X + + + + + + + M + | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adenocarcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibroadenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin | + | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibroma | X + | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Keratoacanthoma | X + | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Melanoma Malignant | X + | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Squamous Cell Carcinoma | X + | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subcut Tiss, Fibroma | X + | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

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Lab: NIEHS

DAY ON TEST

F 344/N Rat Male

07M

ANIMAL ID

***TOTALS**

Alimentary System

| | |
|--------------------------|----|
| Liver | 57 |
| Hepatocellular Adenoma | 3 |
| Hepatocellular Carcinoma | 1 |
| Mesentery | 8 |
| Lipoma | 1 |
| Pancreas | 56 |
| Stomach, Forestomach | 4 |
| Stomach, Glandular | 1 |
| Tongue | 1 |
| Squamous Cell Papilloma | 1 |

Cardiovascular System

| | |
|----------------------|----|
| Heart | 57 |
| Schwannoma Malignant | 2 |

Endocrine System

| | |
|------------------------------------|----|
| Adrenal Cortex | 56 |
| Adenoma | 1 |
| Adrenal Medulla | 56 |
| Bilateral, Pheochromocytoma Benign | 7 |
| Pheochromocytoma Benign | 10 |
| Pheochromocytoma Malignant | 1 |
| Islets, Pancreatic | 56 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

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Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:05

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Male

07M

ANIMAL ID

***TOTALS**

| | |
|------------------------|----|
| Adenoma | 5 |
| Parathyroid Gland | 36 |
| Adenoma | 1 |
| Pituitary Gland | 55 |
| Pars Distalis, Adenoma | 26 |
| Thyroid Gland | 51 |
| C Cell, Adenoma | 5 |
| Cystadenoma | 1 |

General Body System

| | |
|------------|---|
| Peritoneum | 1 |
|------------|---|

Genital System

| | |
|------------------------------------|----|
| Penis | 1 |
| Preputial Gland | 5 |
| Adenoma | 4 |
| Seminal Vesicle | 2 |
| Testes | 56 |
| Bilateral, Interstit Cell, Adenoma | 36 |
| Interstit Cell, Adenoma | 12 |

Hematopoietic System

| | |
|------------------------|----|
| Lymph Node | 1 |
| Lymph Node, Mandibular | 2 |
| Lymph Node, Mesenteric | 56 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:05

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Male

07M

ANIMAL ID

***TOTALS**

| | |
|----------------|----|
| Spleen | 57 |
| Osteosarcoma | 1 |
| Thymus | 30 |
| Thymoma Benign | 2 |

Integumentary System

| | |
|-------------------------|----|
| Mammary Gland | 5 |
| Adenocarcinoma | 1 |
| Adenoma | 1 |
| Carcinoma | 1 |
| Fibroadenoma | 2 |
| Skin | 10 |
| Fibroma | 2 |
| Keratoacanthoma | 3 |
| Melanoma Malignant | 1 |
| Squamous Cell Carcinoma | 1 |
| Subcut Tiss, Fibroma | 2 |

Musculoskeletal System

NONE

Nervous System

| | |
|-------------------|---|
| Brain | 1 |
| Brain, Cerebellum | 1 |

Respiratory System

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:06

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Male

07M

ANIMAL ID

***TOTALS**

| | |
|--------------------------------|----|
| Lung | 57 |
| Alveolar/Bronchiolar Adenoma | 1 |
| Alveolar/Bronchiolar Carcinoma | 1 |
| Squamous Cell Carcinoma | 1 |

Special Senses System

NONE

Urinary System

| | |
|-----------------|----|
| Kidney | 57 |
| Urinary Bladder | 55 |

SYSTEMIC LESIONS

| | |
|------------------------|----|
| Multiple Organ | 57 |
| Leukemia Mononuclear | 32 |
| Mesothelioma Malignant | 3 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01
 Test Type: CHRONIC
 Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)
 Test Compound: NTP 91/92 diet study
 CAS Number: DIET9192

Date Report Requested: 10/20/2014
 Time Report Requested: 18:18:06
 First Dose M/F: NA / NA
 Lab: NIEHS

| F 344/N Rat Male
91M | DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| | | 7 7 7 7 7 7 5 7 7 7 7 7 7 5 3 6 7 6 7 7 7 7 7 7 6 7 7 | | | | | | | | | | | | | | | | | | | | |
| | | 0 2 2 2 2 2 7 2 0 2 2 2 0 2 4 6 2 2 3 2 2 0 2 2 2 0 2 0 1 | | | | | | | | | | | | | | | | | | | | |
| | | 1 0 7 2 7 7 5 7 1 8 7 8 8 5 5 9 9 6 6 1 6 6 8 8 3 8 9 6 | | | | | | | | | | | | | | | | | | | | |
| | | 0 | | | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | | 0 | 0 | 1 | 8 8 8 8 8 8 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 0 0 0 | 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 | | | | | | | | | | | | | | | | |
| Alimentary System | | | | | | | | | | | | | | | | | | | | | | |
| Liver | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hepatocellular Adenoma | | | | | | | | | | | | | | | | | | | X | | | |
| Mesentery | | | | | | | | | | | | | | | | | | + | | | | |
| Pancreas | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cardiovascular System | | | | | | | | | | | | | | | | | | | | | | |
| Heart | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Schwannoma Malignant | | | | | | | | | | | | | | | | | | | | | | |
| Endocrine System | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Adrenal Medulla | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Bilateral, Pheochromocytoma Benign | | | | | | | | | | | | | | | | | | | | | | |
| Pheochromocytoma Benign | | | | | | | | | | | | | | | | | | | | | | |
| Islets, Pancreatic | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | |
| Parathyroid Gland | | + | + | + | + | + | M | + | + | + | M | M | + | + | + | + | M | + | + | M | M | |
| Pituitary Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Pars Distalis, Adenoma | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| C Cell, Adenoma | | | | | | | | | | | | | | | | | | | | | | |
| Follicular Cel, Adenoma | | | | | | | | | | | | | | | | | | | | | | |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)
Test Compound: NTP 91/92 diet study
CAS Number: DIET9192

Date Report Requested: 10/20/2014
Time Report Requested: 18:18:06
First Dose M/F: NA / NA
Lab: NIEHS

| F 344/N Rat Male
91M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 5 | 3 | 6 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 7 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 4 | 6 | 2 | 2 | 3 | 2 | 2 | 0 | 2 | 1 |
| | | 1 | 0 | 7 | 2 | 7 | 7 | 7 | 5 | 7 | 1 | 8 | 7 | 8 | 8 | 5 | 5 | 9 | 9 | 9 | 6 | 6 | 1 | 6 | 8 | 3 |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 1 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |
| Subcut Tiss, Fibroma | | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Trichoepithelioma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Brain, Cerebrum | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Leukemia Mononuclear | X | X | X | X | X | X | X | | X | X | | | | | X | X | X | | | X | X | X | | X | X | |
| Mesothelioma Malignant | | | | | | | | | | | | | | | X | | | X | | | X | | | X | X | |

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:06

First Dose M/F: NA / NA

Lab: NIEHS

**F 344/N Rat Male
91M**

| DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| | 4 | 6 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 6 | 7 | 7 | 5 | 7 | 7 | 7 | 3 | 5 | 7 | 7 | 7 | 6 | 7 | | | |
| | 8 | 4 | 6 | 2 | 0 | 0 | 2 | 2 | 0 | 2 | 5 | 2 | 3 | 2 | 0 | 0 | 2 | 2 | 2 | 3 | 6 | 1 | 2 | 0 | 2 | 1 | 2 | | |
| | 2 | 6 | 2 | 7 | 1 | 1 | 6 | 6 | 1 | 7 | 7 | 7 | 7 | 8 | 8 | 1 | 3 | 8 | 8 | 7 | 7 | 1 | 2 | 7 | 1 | 9 | 5 | 9 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 |
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| Alimentary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Hepatocellular Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Cardiovascular System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Heart | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | |
| Schwannoma Malignant | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| Endocrine System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | |
| Bilateral, Pheochromocytoma Benign | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pheochromocytoma Benign | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Adenoma | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| Parathyroid Gland | M | + | M | + | + | + | M | + | + | + | M | + | + | + | + | + | M | + | + | + | + | + | M | M | + | M | + | | |
| Pituitary Gland | A | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | | |
| Pars Distalis, Adenoma | X | X | X | | | | | X | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | |
| Thyroid Gland | + | + | + | + | + | + | M | + | + | + | M | + | + | + | + | + | M | + | + | + | + | + | M | M | + | M | + | | |
| C Cell, Adenoma | X | X | | | | | | | | | | | | | | | | X | | | | | | | | | | | |
| Follicular Cel, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:06

First Dose M/F: NA / NA

Lab: NIEHS

**F 344/N Rat Male
91M**

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 4 | 6 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 6 | 7 | 7 | 5 | 7 | 7 | 7 | 3 | 5 | 7 | 7 | 7 |
| | 8 | 4 | 6 | 2 | 0 | 0 | 2 | 2 | 0 | 2 | 5 | 2 | 3 | 2 | 0 | 0 | 2 | 2 | 2 | 3 | 6 | 1 | 2 | 0 |
| | 2 | 6 | 2 | 7 | 1 | 1 | 6 | 6 | 1 | 7 | 7 | 7 | 8 | 8 | 1 | 3 | 8 | 8 | 7 | 7 | 1 | 2 | 7 | 1 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 |
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

General Body System

NONE

Genital System

Preputial Gland

+

M

Adenoma

X

Seminal Vesicle

+

Testes

+

Bilateral, Interstit Cell, Adenoma

X

Interstit Cell, Adenoma

X

Hematopoietic System

Lymph Node

Lymph Node, Mesenteric

A

Spleen

A

Thymus

+

Integumentary System

Mammary Gland

Fibroadenoma

Skin

+

+

+

+

+

Basal Cell Carcinoma

Fibroma

X

X

Subcut Tiss, Fibroma

X

X

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 92004-01

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:07

First Dose M/F: NA / NA

Lab: NIEHS

* ..Total animals with tissue examined microscopically: Total animals with tumor

M ..Missing tissue

± ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

| ..Insufficient tissue

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:07

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Male

91M

ANIMAL ID

***TOTALS**

Alimentary System

| | |
|------------------------|----|
| Liver | 60 |
| Hepatocellular Adenoma | 1 |
| Mesentery | 4 |
| Pancreas | 59 |

Cardiovascular System

| | |
|----------------------|----|
| Heart | 60 |
| Schwannoma Malignant | 2 |

Endocrine System

| | |
|------------------------------------|----|
| Adrenal Cortex | 60 |
| Adrenal Medulla | 60 |
| Bilateral, Pheochromocytoma Benign | 2 |
| Pheochromocytoma Benign | 10 |
| Islets, Pancreatic | 59 |
| Adenoma | 6 |
| Parathyroid Gland | 41 |
| Pituitary Gland | 58 |
| Pars Distalis, Adenoma | 25 |
| Thyroid Gland | 58 |
| C Cell, Adenoma | 9 |
| Follicular Cel, Adenoma | 1 |

General Body System

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:07

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Male

91M

ANIMAL ID

***TOTALS**

NONE

Genital System

| | |
|------------------------------------|----|
| Preputial Gland | 3 |
| Adenoma | 3 |
| Seminal Vesicle | 3 |
| Testes | 60 |
| Bilateral, Interstit Cell, Adenoma | 42 |
| Interstit Cell, Adenoma | 11 |

Hematopoietic System

| | |
|------------------------|----|
| Lymph Node | 1 |
| Lymph Node, Mesenteric | 57 |
| Spleen | 59 |
| Thymus | 46 |

Integumentary System

| | |
|----------------------|---|
| Mammary Gland | 1 |
| Fibroadenoma | 1 |
| Skin | 9 |
| Basal Cell Carcinoma | 2 |
| Fibroma | 2 |
| Subcut Tiss, Fibroma | 3 |
| Trichoepithelioma | 1 |

Musculoskeletal System

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:07

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Male

91M

ANIMAL ID

***TOTALS**

NONE

Nervous System

| | |
|-----------------|---|
| Brain | 1 |
| Brain, Cerebrum | 1 |

Respiratory System

| | |
|------|----|
| Lung | 59 |
|------|----|

Special Senses System

| | |
|----------------|---|
| Zymbal's Gland | 1 |
| Adenoma | 1 |

Urinary System

| | |
|-----------------|----|
| Kidney | 60 |
| Urinary Bladder | 59 |

SYSTEMIC LESIONS

| | |
|------------------------|----|
| Multiple Organ | 60 |
| Leukemia Mononuclear | 31 |
| Mesothelioma Malignant | 3 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:07

First Dose M/F: NA / NA

Lab: NIEHS

**F 344/N Rat Male
92M**

| DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5 | 7 | 7 | 7 | 6 | 5 | 3 | 4 | 5 | 4 | 7 | 7 | 6 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 5 | 7 | 6 |
| | 4 | 2 | 2 | 2 | 2 | 9 | 7 | 6 | 5 | 9 | 2 | 2 | 2 | 9 | 2 | 2 | 2 | 2 | 0 | 8 | 2 | 8 | 2 | 2 | 5 |
| | 0 | 8 | 8 | 8 | 5 | 5 | 9 | 9 | 4 | 7 | 8 | 8 | 5 | 8 | 0 | 7 | 6 | 7 | 7 | 1 | 3 | 8 | 9 | 8 | 7 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

Follicular Cel, Adenoma

X

General Body System

Peritoneum

+

Genital System

Preputial Gland

+

Adenoma

X

Squamous Cell Papilloma

Seminal Vesicle

Testes

+

Bilateral, Interstit Cell, Adenoma

X

Interstit Cell, Adenoma

X

+

+

Hematopoietic System

Lymph Node

+

Lymph Node, Mandibular

Lymph Node, Mesenteric

+

Spleen

+

Fibroma

X

Fibrous Histiocytoma

Thymus

+

X

Integumentary System

Mammary Gland

+

+

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

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BLANK ..Not examined microscopically

I ..Insufficient tissue

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 Species/Strain: Rat/F 344/N

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 Lab: NIEHS

| F 344/N Rat Male
92M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|--|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| | | 5 | 7 | 7 | 7 | 6 | 5 | 3 | 4 | 5 | 4 | 7 | 7 | 6 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 5 | 6 | | | | |
| | | 4 | 2 | 2 | 2 | 2 | 9 | 7 | 6 | 5 | 9 | 2 | 2 | 2 | 9 | 2 | 2 | 2 | 2 | 2 | 0 | 8 | 2 | 8 | 2 | | | | |
| | | 0 | 8 | 8 | 8 | 5 | 5 | 9 | 9 | 4 | 7 | 8 | 8 | 5 | 8 | 0 | 7 | 6 | 7 | 7 | 1 | 3 | 8 | 9 | 8 | | | | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | | | | |
| Mammary Gland | | | | | + | | | | | | | | | | | | + | | | | | | | | | | | | |
| Fibroadenoma | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | |
| Inguinal, Fibroadenoma | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin | | | | | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Keratoacanthoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subcut Tiss, Fibroma | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | | | | | | | | | | | | | | | | | + | | | | | | | | | | | | |
| Vertebra, Osteosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | + | | | | | | | | | | | | |
| Brain, Cerebellum | | | | | | | | | | | | | | | | | + | | | | | | | | | | | | |
| Respiratory System | | | | | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | | | | | + | | | | | | | | | | | | + | | | | | | | | | | | | |
| Alveolar/Bronchiolar Adenoma | | | | | + | | | | | | | | | | | | X | | | | | | | | | | | | |
| Alveolar/Bronchiolar Carcinoma | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | |
| Osteosarcoma, Metastatic, Bone | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | |
| Squamous Cell Carcinoma | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Zymbal's Gland | | | | | | | | | | | | | | | | | + | | | | | | | | | | | | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

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Species/Strain: Rat/F 344/N

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First Dose M/F: NA / NA
Lab: NIEHS

| F 344/N Rat Male
92M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 5 | 7 | 7 | 7 | 6 | 5 | 3 | 4 | 5 | 4 | 7 | 7 | 6 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 5 | 7 | 7 | 6 | 6 |
| | | 4 | 2 | 2 | 2 | 2 | 9 | 7 | 6 | 5 | 9 | 2 | 2 | 2 | 9 | 2 | 2 | 2 | 2 | 2 | 0 | 8 | 2 | 8 | 2 | 2 | 5 | 4 |
| | | 0 | 8 | 8 | 8 | 5 | 5 | 9 | 9 | 4 | 7 | 8 | 8 | 5 | 8 | 0 | 7 | 6 | 7 | 7 | 7 | 1 | 3 | 8 | 9 | 8 | 7 | 5 |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Urinary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Urinary Bladder | + | + | + | + | M | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Papilloma | | | | | | | | | | | | | | | | | | | | | | | | | X | | |

SYSTEMIC LESIONS

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Leukemia Mononuclear | | | | | | X | X | X | X | X | | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Mesothelioma Malignant | | | | | | X | | | | | | | | | | | | | | | | | | | | | | |

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

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Lab: NIEHS

**F 344/N Rat Male
92M**

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 5 | 7 | 5 | 6 | 6 | 7 | 7 | 5 | 7 | 7 | 7 | 6 | 5 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 6 |
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |

Alimentary System

| | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | |

Cardiovascular System

| | | | | | | | | | | | | | | | | | | | | | | |
|------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Endocrine System | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Bilateral, Pheochromocytoma Benign | | | | | | | | | | | | | | | | | | X | | | | |
| Pheochromocytoma Benign | | | | | | | | | | | | | | | | | | | X | X | | |
| Islets, Pancreatic Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Parathyroid Gland Adenoma | + | M | M | + | M | + | + | M | M | M | + | + | + | + | + | + | + | M | + | M | M | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Pars Distalis, Adenoma | | | | | | | | | | | | | | | | | | X | X | X | X | X |
| Pars Distalis, Carcinoma | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| C Cell, Adenoma | | | | | | | | | | | | | | | | | | | | | | |

* ..Total animals with tissue examined microscopically; Total animals with tumor

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**F 344/N Rat Male
92M**

| DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 5 | 7 | 5 | 6 | 6 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 6 | 5 |
| 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 8 | 2 | 0 | 1 | 4 | 2 | 2 | 8 | 0 | 0 | 2 | 2 | 2 | 0 |
| 7 | 7 | 7 | 7 | 1 | 6 | 6 | 6 | 1 | 6 | 5 | 0 | 9 | 9 | 5 | 1 | 2 | 6 | 5 | 9 | 1 | 1 | 7 | 7 | 7 | 9 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 |

Follicular Cel, Adenoma

General Body System

Peritoneum

+

Genital System

Preputial Gland

+ +

Adenoma

X

Squamous Cell Papilloma

X

Seminal Vesicle

+ + + + + + + + + + +

+

Testes

+ + + + + + + + + + +

+ + + + + + + + + + + + + + +

Bilateral, Interstit Cell, Adenoma

X X X X X X X X X X

X X X X X X X X X X X X

Interstit Cell, Adenoma

X X

X X X X

Hematopoietic System

Lymph Node

+

Lymph Node, Mandibular

+

Lymph Node, Mesenteric

+ + + + + + + + + + +

+ M + + + + + + + + + + + + +

Spleen

+ + + + + + + + + + +

+ + + + + + + + + + + + +

Fibroma

Fibrous Histiocytoma

X

Thymus

+ + + + M + M + M + +

+ M + + + M + + + + M + + M

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+

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92M**

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|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 5 | 7 | 5 | 6 | 6 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 6 | 5 |
| 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 8 | 2 | 0 | 1 | 4 | 2 | 2 | 8 | 0 | 0 | 2 | 2 | 2 | 0 |
| 7 | 7 | 7 | 7 | 1 | 6 | 6 | 6 | 1 | 6 | 5 | 0 | 9 | 9 | 5 | 1 | 2 | 6 | 5 | 9 | 1 | 1 | 7 | 7 | 7 | 9 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 |

Mammary Gland

+

Fibroadenoma

X

Inguinal, Fibroadenoma

Skin

+

+

Keratoacanthoma

X

X

Subcut Tiss, Fibroma

Musculoskeletal System

Bone

+

Vertebra, Osteosarcoma

X

Nervous System

Brain, Cerebellum

Respiratory System

Lung

+ + + + + + + + + + + + +

+ + + + + + + + + + + + + + +

Alveolar/Bronchiolar Adenoma

Alveolar/Bronchiolar Carcinoma

Osteosarcoma, Metastatic, Bone

Squamous Cell Carcinoma

Special Senses System

Zymbal's Gland

+

Carcinoma

X

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92M**

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|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 5 | 7 | 5 | 6 | 6 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 6 | 5 | |
| 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 8 | 2 | 0 | 1 | 4 | 2 | 2 | 8 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 3 | 2 |
| 7 | 7 | 7 | 7 | 1 | 6 | 6 | 6 | 1 | 6 | 5 | 0 | 9 | 9 | 5 | 1 | 2 | 6 | 5 | 9 | 1 | 1 | 7 | 7 | 7 | 9 | 1 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Urinary System

Kidney +

Urinary Bladder +

Papilloma

SYSTEMIC LESIONS

Multiple Organ +

Leukemia Mononuclear X X X X X X X

Mesothelioma Malignant

+ +

X X + + + + + + M +

X

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:08

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Male

92M

ANIMAL ID

***TOTALS**

Alimentary System

| | |
|-----------------|----|
| Liver | 56 |
| Mesentery | 5 |
| Pancreas | 52 |
| Salivary Glands | 1 |

Cardiovascular System

| | |
|-------|----|
| Heart | 56 |
|-------|----|

Endocrine System

| | |
|------------------------------------|----|
| Adrenal Cortex | 56 |
| Adrenal Medulla | 56 |
| Bilateral, Pheochromocytoma Benign | 1 |
| Pheochromocytoma Benign | 6 |
| Islets, Pancreatic | 52 |
| Adenoma | 1 |
| Parathyroid Gland | 40 |
| Adenoma | 1 |
| Pituitary Gland | 56 |
| Pars Distalis, Adenoma | 18 |
| Pars Distalis, Carcinoma | 1 |
| Thyroid Gland | 56 |
| C Cell, Adenoma | 1 |
| Follicular Cel, Adenoma | 1 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:08

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Male

92M

ANIMAL ID

***TOTALS**

General Body System

| | |
|------------|---|
| Peritoneum | 2 |
|------------|---|

Genital System

| | |
|------------------------------------|----|
| Preputial Gland | 3 |
| Adenoma | 2 |
| Squamous Cell Papilloma | 1 |
| Seminal Vesicle | 5 |
| Testes | 56 |
| Bilateral, Interstit Cell, Adenoma | 37 |
| Interstit Cell, Adenoma | 14 |

Hematopoietic System

| | |
|------------------------|----|
| Lymph Node | 2 |
| Lymph Node, Mandibular | 1 |
| Lymph Node, Mesenteric | 54 |
| Spleen | 56 |
| Fibroma | 1 |
| Fibrous Histiocytoma | 1 |
| Thymus | 38 |

Integumentary System

| | |
|------------------------|---|
| Mammary Gland | 3 |
| Fibroadenoma | 2 |
| Inguinal, Fibroadenoma | 1 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:08

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Male

92M

ANIMAL ID

***TOTALS**

| | |
|----------------------|---|
| Skin | 3 |
| Keratoacanthoma | 2 |
| Subcut Tiss, Fibroma | 1 |

Musculoskeletal System

| | |
|------------------------|---|
| Bone | 1 |
| Vertebra, Osteosarcoma | 1 |

Nervous System

| | |
|-------------------|---|
| Brain, Cerebellum | 1 |
|-------------------|---|

Respiratory System

| | |
|--------------------------------|----|
| Lung | 56 |
| Alveolar/Bronchiolar Adenoma | 1 |
| Alveolar/Bronchiolar Carcinoma | 1 |
| Osteosarcoma, Metastatic, Bone | 1 |
| Squamous Cell Carcinoma | 1 |

Special Senses System

| | |
|----------------|---|
| Zymbal's Gland | 1 |
| Carcinoma | 1 |

Urinary System

| | |
|-----------------|----|
| Kidney | 56 |
| Urinary Bladder | 52 |
| Papilloma | 1 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:08

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Male

92M

ANIMAL ID

***TOTALS**

SYSTEMIC LESIONS

| | |
|------------------------|----|
| Multiple Organ | 56 |
| Leukemia Mononuclear | 27 |
| Mesothelioma Malignant | 2 |

END OF MALE DATA

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:09

First Dose M/F: NA / NA

Lab: NIEHS

**F 344/N Rat Female
07F**

| DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | 7 | 3 | 7 | 7 | 6 | 7 | 5 | 7 | 7 | 7 | 4 | 7 | 5 | 7 | 5 | 6 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 6 |
| 2 | 2 | 7 | 0 | 2 | 5 | 2 | 8 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 7 | 1 | 2 | 2 | 2 | 2 | 2 | 0 | 3 | 2 | 0 |
| 8 | 8 | 3 | 1 | 8 | 6 | 8 | 9 | 6 | 8 | 6 | 5 | 6 | 4 | 8 | 9 | 7 | 8 | 8 | 9 | 9 | 9 | 1 | 1 | 6 | 1 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 2 | 2 | 3 |

Follicular Cel, Adenoma

General Body System

NONE

Genital System

Clitoral Gland

+

+

+

Adenoma

X

Carcinoma

X

X

Ovary

+ + + + +

+

+

Granulosa Cell Tumor Benign

X

Tubulostromal Carcinoma

Uterus

+ + + + +

+

+

Endometrium, Polyp Stromal

X

Hematopoietic System

Lymph Node, Mesenteric

+ + + + +

+

+

+

Spleen

+ + + + +

+

+

+

Thymus

+ M M + +

M

M

+

Osteosarcoma, Metastatic, Bone

X

Thymoma Benign

Integumentary System

Mammary Gland

+ +

+ +

+ + + + +

+ + + + +

+ + +

Adenocarcinoma

X

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 92004-01
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)
Test Compound: NTP 91/92 diet study
CAS Number: DIET9192

Date Report Requested: 10/20/2014
Time Report Requested: 18:18:09
First Dose M/F: NA / NA
Lab: NIEHS

**F 344/N Rat Female
07F**

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7 | 7 | 3 | 7 | 7 | 6 | 7 | 5 | 7 | 7 | 7 | 4 | 7 | 5 | 7 | 5 | 6 | 7 | 7 | 7 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| Adenocarcinoma | | | | | | | | | | | | | | | | | | | | X |
| Adenoma | | | | | | | | | | | | | | | | | | | | |
| Fibroadenoma | | | | | | | | | | | | | | | | | | | X | |
| Fibroadenoma, Multiple | | | | X | | X | | | | | | | | | | | | | | |
| Skin | | | | | | | | | | | | | | | | | | | | + |
| Carcinoma, Metastatic, Zymbal'S Gland | | | | | | | | | | | | | | | | | | | | |
| Subcut Tiss, Lipoma | | | | | | | | | | | | | | | | | | | | X |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | |
| Bone | | | | | | | | | | | | | | | | | | | + | |
| Rib, Osteosarcoma | | | | | | | | | | | | | | | | | | | X | |
| Nervous System | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Carcinoma, Metastatic, Zymbal'S Gland | | | | | | | | | | | | | | | | | | | | |
| Osteosarcoma, Metastatic, Bone | | | | | | | | | | | | | | | | | | | X | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:09

First Dose M/F: NA / NA

Lab: NIEHS

**F 344/N Rat Female
07F**

| DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7 | 7 | 3 | 7 | 7 | 6 | 7 | 5 | 7 | 7 | 7 | 4 | 7 | 5 | 7 | 5 | 6 | 7 | 7 | 7 | 5 |
| | 2 | 2 | 7 | 0 | 2 | 5 | 2 | 8 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 7 | 1 | 2 | 2 | 2 | 6 |
| | 8 | 8 | 3 | 1 | 8 | 6 | 8 | 9 | 6 | 8 | 6 | 5 | 6 | 4 | 8 | 9 | 7 | 8 | 8 | 9 | 9 |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Urinary Bladder | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Granulocytic | | | | | | X | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | X | X | | | | | X | X | | | | | | | | | | X | | | X |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)
Test Compound: NTP 91/92 diet study
CAS Number: DIET9192

Date Report Requested: 10/20/2014
Time Report Requested: 18:18:09
First Dose M/F: NA / NA
Lab: NIEHS

| F 344/N Rat Female
07F | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|---------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 6 | 5 | 7 | 6 | 7 | 5 | 7 | 7 | 6 | 5 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 5 | 7 | 5 | 5 | 3 | 7 | 5 | 7 | |
| | | 1 | 4 | 2 | 3 | 2 | 4 | 2 | 2 | 6 | 3 | 0 | 2 | 9 | 2 | 2 | 0 | 2 | 2 | 9 | 2 | 6 | 8 | 5 | 2 | 6 | 2 |
| | | 6 | 0 | 9 | 9 | 9 | 1 | 9 | 9 | 5 | 4 | 1 | 8 | 3 | 8 | 6 | 1 | 6 | 6 | 6 | 2 | 9 | 9 | 6 | 2 | 9 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

Alimentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Liver | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pheochromocytoma Malignant, Metastatic, | | | | | | | | | | | | | | | | | | | | | | | | X | | |
| Adrenal Medulla | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

Cardiovascular System

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Endocrine System | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Bilateral, Pheochromocytoma Malignant | | | | | | | | | | | | | | | | | | | | | | | X | | | |
| Pheochromocytoma Benign | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Parathyroid Gland | + | + | M | + | + | + | + | + | + | M | M | + | M | + | + | + | M | M | + | + | M | M | M | + | + | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Pars Distalis, Adenoma | X | | | X | X | X | X | X | X | X | X | | | | | | | | | | X | X | X | X | X | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| C Cell, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cystadenoma | | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Date Report Requested: 10/20/2014

Test Type: CHRONIC

Test Compound: NTP 91/92 diet study

Time Report Requested: 18:18:09

Species/Strain: Rat/F 344/N

CAS Number: DIET9192

First Dose M/F: NA / NA

Lab: NIEHS

**F 344/N Rat Female
07F**

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 6 | 5 | 7 | 6 | 7 | 5 | 7 | 7 | 6 | 5 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 5 | 5 | 3 | 7 | 5 | 7 | 6 | 7 |
| | 1 | 4 | 2 | 3 | 2 | 4 | 2 | 2 | 6 | 3 | 0 | 2 | 9 | 2 | 2 | 0 | 2 | 2 | 9 | 2 | 6 | 8 | 5 | 2 | 6 | 2 | 7 | 2 |
| | 6 | 0 | 9 | 9 | 9 | 1 | 9 | 9 | 5 | 4 | 1 | 8 | 3 | 8 | 6 | 1 | 6 | 6 | 6 | 6 | 2 | 9 | 9 | 6 | 2 | 9 | 0 | 9 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Follicular Cel, Adenoma

X

General Body System

NONE

Genital System

Clitoral Gland

+ +

Adenoma

X X

Carcinoma

X

Ovary

+ + + M +

Granulosa Cell Tumor Benign

X

Tubulostromal Carcinoma

X

Uterus

+ + + M + + + + + + + + + + M +

Endometrium, Polyp Stromal

X X

Hematopoietic System

Lymph Node, Mesenteric

+ +

Spleen

+ +

Thymus

M + + + + + + + M M + + + M + + + M +

Osteosarcoma, Metastatic, Bone

X

Thymoma Benign

Integumentary System

Mammary Gland

+ +

Adenocarcinoma

X

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:10

First Dose M/F: NA / NA

Lab: NIEHS

**F 344/N Rat Female
07F**

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 6 | 5 | 7 | 6 | 7 | 5 | 7 | 7 | 6 | 5 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 5 | 7 | 5 | 5 | 3 | 7 | 5 |
| | 1 | 4 | 2 | 3 | 2 | 4 | 2 | 2 | 6 | 3 | 0 | 2 | 9 | 2 | 2 | 0 | 2 | 2 | 9 | 2 | 6 | 8 | 5 | 2 |
| | 6 | 0 | 9 | 9 | 9 | 1 | 9 | 9 | 5 | 4 | 1 | 8 | 3 | 8 | 6 | 1 | 6 | 6 | 6 | 2 | 9 | 9 | 6 | 2 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 |
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

Adenocarcinoma

X

Adenoma

Fibroadenoma

X

X X

Fibroadenoma, Multiple

X

Skin

+ +

+

Carcinoma, Metastatic, Zymbal'S Gland

X

Subcut Tiss, Lipoma

Musculoskeletal System

Bone

Rib, Osteosarcoma

Nervous System

NONE

Respiratory System

Lung

+ +

X

Carcinoma, Metastatic, Zymbal'S Gland

Osteosarcoma, Metastatic, Bone

Special Senses System

Zymbal's Gland

+

Carcinoma

X

Urinary System

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:10

First Dose M/F: NA / NA

Lab: NIEHS

**F 344/N Rat Female
07F**

| DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 6 | 5 | 7 | 6 | 7 | 5 | 7 | 7 | 6 | 5 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 5 | 7 | 5 | 5 | 3 | 7 | 5 | 7 | |
| | 1 | 4 | 2 | 3 | 2 | 4 | 2 | 2 | 6 | 3 | 0 | 2 | 9 | 2 | 2 | 0 | 2 | 2 | 9 | 2 | 6 | 8 | 5 | 2 | 6 | |
| | 6 | 0 | 9 | 9 | 9 | 1 | 9 | 9 | 5 | 4 | 1 | 8 | 3 | 8 | 6 | 1 | 6 | 6 | 6 | 6 | 2 | 9 | 9 | 6 | 2 | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | |
| Adenoma | | | | | | | | | | | | | | | | | X | | | | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | X | | | | | | | | | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | | X | | | X | X | X | | | | | | | | X | X | | | | | X | X | | X | | |

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:10

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Female

07F

ANIMAL ID

***TOTALS**

Alimentary System

| | |
|---|----|
| Intestine Large, Colon | 1 |
| Liver | 56 |
| Pheochromocytoma Malignant, Metastatic, | 1 |
| Adrenal Medulla | |
| Mesentery | 2 |
| Pancreas | 55 |

Cardiovascular System

| | |
|-------|----|
| Heart | 56 |
|-------|----|

Endocrine System

| | |
|---------------------------------------|----|
| Adrenal Cortex | 56 |
| Adrenal Medulla | 55 |
| Bilateral, Pheochromocytoma Malignant | 1 |
| Pheochromocytoma Benign | 3 |
| Islets, Pancreatic | 55 |
| Parathyroid Gland | 36 |
| Pituitary Gland | 55 |
| Pars Distalis, Adenoma | 33 |
| Thyroid Gland | 54 |
| C Cell, Adenoma | 4 |
| Cystadenoma | 1 |
| Follicular Cel, Adenoma | 1 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:10

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Female

07F

ANIMAL ID

***TOTALS**

General Body System

NONE

Genital System

| | |
|-----------------------------|----|
| Clitoral Gland | 7 |
| Adenoma | 3 |
| Carcinoma | 3 |
| Ovary | 55 |
| Granulosa Cell Tumor Benign | 2 |
| Tubulostromal Carcinoma | 1 |
| Uterus | 52 |
| Endometrium, Polyp Stromal | 3 |

Hematopoietic System

| | |
|--------------------------------|----|
| Lymph Node, Mesenteric | 56 |
| Spleen | 56 |
| Thymus | 40 |
| Osteosarcoma, Metastatic, Bone | 1 |
| Thymoma Benign | 1 |

Integumentary System

| | |
|----------------|----|
| Mammary Gland | 29 |
| Adenocarcinoma | 2 |
| Adenoma | 1 |
| Fibroadenoma | 23 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:10

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Female

07F

ANIMAL ID

***TOTALS**

| | |
|---------------------------------------|---|
| Fibroadenoma, Multiple | 4 |
| Skin | 4 |
| Carcinoma, Metastatic, Zymbal'S Gland | 1 |
| Subcut Tiss, Lipoma | 1 |
| Musculoskeletal System | |
| Bone | 1 |
| Rib, Osteosarcoma | 1 |

Nervous System

NONE

Respiratory System

| | |
|---------------------------------------|----|
| Lung | 56 |
| Carcinoma, Metastatic, Zymbal'S Gland | 1 |
| Osteosarcoma, Metastatic, Bone | 1 |

Special Senses System

| | |
|----------------|---|
| Zymbal's Gland | 1 |
| Carcinoma | 1 |

Urinary System

| | |
|-----------------|----|
| Kidney | 56 |
| Urinary Bladder | 54 |
| Adenoma | 1 |

SYSTEMIC LESIONS

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:10

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Female

07F

ANIMAL ID

***TOTALS**

| | |
|-----------------------|----|
| Multiple Organ | 56 |
| Histiocytic Sarcoma | 1 |
| Leukemia Granulocytic | 1 |
| Leukemia Mononuclear | 15 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:10

First Dose M/F: NA / NA

Lab: NIEHS

**F 344/N Rat Female
91F**

| DAY ON TEST | Alimentary System | | | | | | | | | | | | | | | | | | | |
|-------------|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cardiovascular System | | | | | | | | | | | | | | | | | | | |
| | Endocrine System | | | | | | | | | | | | | | | | | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 5 | 7 | 4 |
| 1 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 0 | 2 | 0 | 5 | 2 | 0 | 2 |
| 9 | 9 | 9 | 9 | 9 | 9 | 8 | 9 | 1 | 9 | 9 | 9 | 9 | 8 | 9 | 0 | 1 | 6 | 6 | 9 | 1 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 |

Alimentary System

| | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M |
| Hepatocellular Adenoma | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | + | | | | | + |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | M |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | + | | |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | + | | |

Cardiovascular System

| | | | | | | | | | | | | | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Heart | + | + | + | + | + | + | + | + | + | + | M | + | + | + | M | + | + | + | + | M |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

Endocrine System

| | | | | | | | | | | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | M |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | M |
| Pheochromocytoma Benign | | | | | | | | | | | | | | | X | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | M |
| Parathyroid Gland | M | M | + | + | M | + | + | M | + | + | M | M | + | M | + | M | + | + | + | M |
| Pituitary Gland | + | + | + | + | + | + | + | I | + | + | + | + | + | + | M | + | + | + | + | M |
| Pars Distalis, Adenoma | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | |
| Pars Intermed, Adenoma | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | + | M | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | M |
| C Cell, Adenoma | | | | | | | | | | | | | | | X | | | | | |

General Body System

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:10

First Dose M/F: NA / NA

Lab: NIEHS

**F 344/N Rat Female
91F**

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 5 | 7 | 4 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 7 |
| | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 0 | 2 | 0 | 5 | 2 | 2 | 7 | 2 | 0 | 2 | 2 | 2 | 2 | 1 | 2 | 7 |
| | 9 | 9 | 9 | 9 | 9 | 8 | 9 | 1 | 9 | 9 | 9 | 9 | 8 | 9 | 0 | 1 | 6 | 6 | 2 | 9 | 6 | 9 | 1 | 9 | 9 | 1 | 2 | 7 | 9 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

NONE

Genital System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clitoral Gland | + | + | | | | | | | | | | | | | | | | | | | | | | | | | | | M |
| Adenoma | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ovary | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Granulosa Cell Tumor Benign | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | M | |
| Endometrium, Polyp Stromal | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sarcoma Stromal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Hematopoietic System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | M |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | M |
| Thymus | M | M | + | + | + | M | M | + | M | + | + | + | + | + | + | M | M | + | M | M | + | + | M | + | + | M | M | |

Integumentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|--|--|--|--|--|--|--|--|---|
| Mammary Gland | + | + | + | | | | | | | | | | | | | | | | + | + | | | | | | | | | |
| Adenoma | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | |
| Carcinoma | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | |
| Fibroadenoma | X | | X | X | | | | | | | | | | | | | | X | X | | | | | | | | | | |
| Fibroadenoma, Multiple | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | X |
| Skin | | | | | | | | | | | | | | | | | | | + | | | | | | | | | | + |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:11

First Dose M/F: NA / NA

Lab: NIEHS

**F 344/N Rat Female
91F**

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 5 | 7 | 4 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | |
| | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 0 | 2 | 0 | 5 | 2 | 2 | 7 | 2 | 0 | 2 | 2 | 2 | 2 | 1 | 2 | 7 |
| | 9 | 9 | 9 | 9 | 9 | 8 | 9 | 1 | 9 | 9 | 9 | 9 | 8 | 9 | 0 | 1 | 6 | 6 | 2 | 9 | 6 | 9 | 1 | 9 | 9 | 1 | 2 | 7 | 9 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Subcut Tiss, Fibroma

X

Musculoskeletal System

NONE

Nervous System

NONE

Respiratory System

Lung

+ M

Alveolar/Bronchiolar Adenoma

X

Special Senses System

Lacrimal Gland

+

Adenoma

X

Urinary System

Kidney

+ M

Urinary Bladder

+ M + M

SYSTEMIC LESIONS

Multiple Organ

+ +

Leukemia Mononuclear

X X

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:11

First Dose M/F: NA / NA

Lab: NIEHS

**F 344/N Rat Female
91F**

| DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7 | 7 | 7 | 7 | 4 | 7 | 5 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 |
| | 2 | 2 | 2 | 0 | 3 | 2 | 3 | 2 | 2 | 4 | 2 | 2 | 0 | 2 | 2 | 9 | 2 | 2 | 2 | 2 | 2 | 2 | 6 | 2 | 1 |
| 9 | 9 | 9 | 1 | 5 | 7 | 4 | 7 | 4 | 7 | 6 | 6 | 9 | 6 | 5 | 6 | 7 | 7 | 7 | 8 | 8 | 8 | 6 | 8 | 8 | 6 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Alimentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hepatocellular Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | | |

Cardiovascular System

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

Endocrine System

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Pheochromocytoma Benign | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Parathyroid Gland | M | + | + | M | M | + | + | M | + | + | + | + | + | + | + | + | M | + | M | + | + | M | + | + | M | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Pars Distalis, Adenoma | X | | X | X | | X | | X | | X | X | | X | | X | | X | X | X | X | X | X | X | X | X | |
| Pars Intermed, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| C Cell, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | |

General Body System

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:11

First Dose M/F: NA / NA

Lab: NIEHS

**F 344/N Rat Female
91F**

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7 | 7 | 7 | 7 | 4 | 7 | 5 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | 2 | 2 | 2 | 0 | 3 | 2 | 3 | 2 | 2 | 4 | 2 | 2 | 0 | 2 | 2 | 9 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 9 | 9 | 9 | 1 | 5 | 7 | 4 | 7 | 4 | 7 | 6 | 6 | 9 | 6 | 5 | 6 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 6 | 8 | 8 | 8 | 8 | 6 | 6 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 |
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 7 | 8 | 9 | 0 |

NONE

Genital System

| | | |
|-----------------------------|---|----------|
| Clitoral Gland | + + | + + |
| Adenoma | | X |
| Squamous Cell Papilloma | | X |
| Ovary | + + | |
| Granulosa Cell Tumor Benign | | X |
| Uterus | + + | |
| Endometrium, Polyp Stromal | | X |
| Sarcoma Stromal | X | |

Hematopoietic System

| | | |
|------------------------|---|--|
| Lymph Node, Mesenteric | + + | |
| Spleen | + + | |
| Thymus | + + + M M + + + + M M + + + + + M + + M + M + M + | |

Integumentary System

| | | |
|------------------------|---|------------------------|
| Mammary Gland | + + | |
| Adenoma | | |
| Carcinoma | | |
| Fibroadenoma | X X X X | X X X |
| Fibroadenoma, Multiple | | |
| Skin | | X X X X |

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 92004-01
 Test Type: CHRONIC
 Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study
 CAS Number: DIET9192

Date Report Requested: 10/20/2014
 Time Report Requested: 18:18:11
 First Dose M/F: NA / NA
 Lab: NIEHS

**F 344/N Rat Female
 91F**

| DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Subcut Tiss, Fibroma | | | | | | | | | | | | | | | | | | | | | | | | |
| | Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | |
| | Nervous System | | | | | | | | | | | | | | | | | | | | | | | | |
| | Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 7 | 7 | 7 | 7 | 7 | 4 | 7 | 5 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | |
| 2 | 2 | 2 | 2 | 0 | 3 | 2 | 3 | 2 | 2 | 4 | 2 | 2 | 0 | 2 | 2 | 9 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 |
| 9 | 9 | 9 | 9 | 1 | 5 | 7 | 4 | 7 | 4 | 7 | 6 | 6 | 9 | 6 | 5 | 6 | 7 | 7 | 7 | 8 | 8 | 8 | 6 | 8 | 6 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 8 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Subcut Tiss, Fibroma

Musculoskeletal System

NONE

Nervous System

NONE

Respiratory System

Lung

+

Alveolar/Bronchiolar Adenoma

Special Senses System

Lacrimal Gland

Adenoma

Urinary System

Kidney

+

Urinary Bladder

+

SYSTEMIC LESIONS

Multiple Organ

+

Leukemia Mononuclear

X

X

X

X

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:11

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Female

91F

ANIMAL ID

***TOTALS**

Alimentary System

| | |
|------------------------|----|
| Liver | 56 |
| Hepatocellular Adenoma | 1 |
| Mesentery | 3 |
| Pancreas | 58 |
| Stomach, Forestomach | 1 |
| Stomach, Glandular | 1 |

Cardiovascular System

| | |
|-------|----|
| Heart | 57 |
|-------|----|

Endocrine System

| | |
|-------------------------|----|
| Adrenal Cortex | 58 |
| Adrenal Medulla | 58 |
| Pheochromocytoma Benign | 2 |
| Islets, Pancreatic | 58 |
| Parathyroid Gland | 40 |
| Pituitary Gland | 57 |
| Pars Distalis, Adenoma | 31 |
| Pars Intermed, Adenoma | 1 |
| Thyroid Gland | 55 |
| C Cell, Adenoma | 1 |

General Body System

NONE

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:11

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Female

91F

ANIMAL ID

***TOTALS**

Genital System

| | |
|-----------------------------|----|
| Clitoral Gland | 5 |
| Adenoma | 3 |
| Squamous Cell Papilloma | 1 |
| Ovary | 57 |
| Granulosa Cell Tumor Benign | 1 |
| Uterus | 57 |
| Endometrium, Polyp Stromal | 5 |
| Sarcoma Stromal | 2 |

Hematopoietic System

| | |
|------------------------|----|
| Lymph Node, Mesenteric | 58 |
| Spleen | 58 |
| Thymus | 39 |

Integumentary System

| | |
|------------------------|----|
| Mammary Gland | 26 |
| Adenoma | 1 |
| Carcinoma | 1 |
| Fibroadenoma | 20 |
| Fibroadenoma, Multiple | 5 |
| Skin | 2 |
| Subcut Tiss, Fibroma | 1 |

Musculoskeletal System

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:11

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Female

91F

ANIMAL ID

***TOTALS**

NONE

Nervous System

NONE

Respiratory System

| | |
|------------------------------|----|
| Lung | 57 |
| Alveolar/Bronchiolar Adenoma | 1 |

Special Senses System

| | |
|----------------|---|
| Lacrimal Gland | 1 |
| Adenoma | 1 |

Urinary System

| | |
|-----------------|----|
| Kidney | 58 |
| Urinary Bladder | 56 |

SYSTEMIC LESIONS

| | |
|----------------------|----|
| Multiple Organ | 58 |
| Leukemia Mononuclear | 16 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Date Report Requested: 10/20/2014

Test Type: CHRONIC

Test Compound: NTP 91/92 diet study

Time Report Requested: 18:18:11

Species/Strain: Rat/F 344/N

CAS Number: DIET9192

First Dose M/F: NA / NA

Lab: NIEHS

**F 344/N Rat Female
92F**

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 3 |
| | 0 | 2 | 2 | 2 | 3 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 4 | 2 | 2 | 6 | 2 | 7 | 0 | 2 | 6 | 2 | 2 | 6 | 8 | 1 |
| | 1 | 6 | 9 | 9 | 1 | 7 | 1 | 7 | 7 | 7 | 9 | 9 | 7 | 9 | 8 | 0 | 8 | 3 | 8 | 6 | 0 | 6 | 6 | 1 | 9 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 7 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 |

Alimentary System

| | |
|------------------------|---|
| Intestine Large, Cecum | + |
| Liver | + |
| Hepatocellular Adenoma | X |
| Mesentery | |
| Pancreas | + |

Cardiovascular System

| | |
|-------|---|
| Heart | + |
| | + |

Endocrine System

| | |
|-------------------------|-------|
| Adrenal Cortex | + |
| Adrenal Medulla | + |
| Pheochromocytoma Benign | X |
| Islets, Pancreatic | + |
| Parathyroid Gland | + |
| Pituitary Gland | + |
| Pars Distalis, Adenoma | X X X |
| Thyroid Gland | + |
| C Cell, Adenoma | |
| C Cell, Carcinoma | X |

General Body System

NONE

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:11

First Dose M/F: NA / NA

Lab: NIEHS

**F 344/N Rat Female
92F**

| DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | |
|-------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 6 | 7 | 6 | 7 | 6 | 7 |
| 0 | 2 | 2 | 2 | 3 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 4 | 2 | 2 | 6 | 2 | 7 | 0 | 2 | 6 |
| 1 | 6 | 9 | 9 | 1 | 7 | 1 | 7 | 7 | 7 | 9 | 9 | 7 | 9 | 8 | 0 | 8 | 3 | 8 | 6 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 |

Genital System

| | | |
|----------------------------|---|---|
| Clitoral Gland | + | + |
| Adenoma | X | |
| Fibroma | | X |
| Squamous Cell Papilloma | | |
| Ovary | + | + |
| Leiomyoma | | |
| Uterus | + | + |
| Endometrium, Polyp Stromal | | X |
| | | X |
| | | X |
| | | X |

Hematopoietic System

| | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Carcinoma, Metastatic, Tissue Nos | X | | | | | | | | | | | | | | | | | | | |
| Hemangiosarcoma | | | | | | | | | | | | | | | | | | | | |
| Thymus | M | M | + | + | + | + | + | + | + | M | + | + | + | + | + | M | M | + | M | + |

Integumentary System

| | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenocarcinoma | | | | | | | | | | | | | | | | | | | | |
| Fibroadenoma | | | X | | X | X | X | | | | | | | | | X | | | | |
| Fibroadenoma, Multiple | | | X | | | | | | | | | | | | | X | | | X | |
| Inguinal, Fibroadenoma | | | | | | | | | | | | | | | | | X | X | | |

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:12

First Dose M/F: NA / NA

Lab: NIEHS

**F 344/N Rat Female
92F**

| DAY ON TEST | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|-----------------|---|---|---|---|---|---|-----------------|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|
| | 7 7 7 7 5 7 7 7 7 7 7 7 7 7 5 7 7 6 7 6 7 7 6 7 7 7 6 7 7 6 3 6 7 | | | | | | | 6 7 7 7 6 3 6 7 | | | | | | | 7 7 7 7 6 8 1 2 | | | | | | | | | | | | | | | | | | | |
| 0 2 2 2 3 2 0 2 2 2 2 2 2 4 2 2 6 2 7 0 2 6 2 2 0 2 2 2 0 2 2 6 8 1 2 | | | | | | | 6 2 2 0 2 2 6 8 1 2 9 9 0 4 7 9 | | | | | | | 9 0 4 7 9 0 0 4 7 9 | | | | | | | | | | | | | | | | | | | | |
| 1 6 9 9 1 7 1 7 7 7 9 9 7 9 8 0 8 3 8 6 0 6 6 1 9 9 0 4 7 9 | | | | | | | 6 | | | | | | | 6 | | | | | | | | | | | | | | | | | | | | |
| 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 4 4 4 4 4 4 4 4 4 4 4 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 6 6 6 6 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin | | | | | | | | | | | | | | | | | | | | | + | + | | | | | | | | | | | | |
| Subcut Tiss, Fibroma | | | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | |
| Subcut Tiss, Fibrosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | | | | | | | | | | | | | | | | | | | | | + | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | |
| Carcinoma, Metastatic, Tissue Nos | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | | | | | | | | | | | | | | | | | | | | | + | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | |
| Sarcoma | | | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | |
| Leukemia Mononuclear | X | | | | | X | | X | | | | X | X | X | | X | | X | X | | X | X | | | | | | | | | | | | |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Date Report Requested: 10/20/2014

Test Type: CHRONIC

Test Compound: NTP 91/92 diet study

Time Report Requested: 18:18:12

Species/Strain: Rat/F 344/N

CAS Number: DIET9192

First Dose M/F: NA / NA

Lab: NIEHS

**F 344/N Rat Female
92F**

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7 | 7 | 7 | 6 | 5 | 6 | 7 | 7 | 5 | 7 | 7 | 6 | 6 | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 |
| | 2 | 0 | 2 | 7 | 4 | 2 | 2 | 2 | 7 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 9 | 1 | 9 | 3 | 0 | 1 | 8 | 8 | 2 | 6 | 6 | 2 | 2 | 5 | 7 | 7 | 7 | 4 | 7 | 9 | 5 | 9 | 9 | 9 | 8 | 8 | 8 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 |
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

Alimentary System

Intestine Large, Cecum

+ +

Liver

Hepatocellular Adenoma

Mesentery

Pancreas

+ M

Cardiovascular System

Heart

+ +

Endocrine System

Adrenal Cortex

+ +

Adrenal Medulla

+ M + + + + + + + +

Pheochromocytoma Benign

+ M

Islets, Pancreatic

+ M

Parathyroid Gland

+ + M + + + + + + + + + + + + M M + + + + + M M M + + + + + + + + + + + + + +

Pituitary Gland

+ +

Pars Distalis, Adenoma

X X

Thyroid Gland

+ +

C Cell, Adenoma

X X

C Cell, Carcinoma

General Body System

NONE

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:12

First Dose M/F: NA / NA

Lab: NIEHS

**F 344/N Rat Female
92F**

| DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 7 | 7 | 7 | 6 | 5 | 6 | 7 | 7 | 5 | 7 | 7 | 6 | 6 | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 5 | 7 | 7 | 7 | 7 |
| | 2 | 0 | 2 | 7 | 4 | 2 | 2 | 2 | 7 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 |
| | 9 | 1 | 9 | 3 | 0 | 1 | 8 | 8 | 2 | 6 | 6 | 2 | 2 | 5 | 7 | 7 | 7 | 4 | 7 | 9 | 5 | 9 | 9 | 8 | 8 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 |
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 |

Genital System

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Clitoral Gland | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibroma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Leiomyoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Endometrium, Polyp Stromal | | | | | | | | | | | | | | | | | | | | | | | | | | |

Hematopoietic System

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Carcinoma, Metastatic, Tissue Nos | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemangiosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus | + | M | + | + | + | + | + | + | + | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | | |

Integumentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Adenocarcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibroadenoma | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | |
| Fibroadenoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inguinal, Fibroadenoma | | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:12

First Dose M/F: NA / NA

Lab: NIEHS

**F 344/N Rat Female
92F**

| DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7 | 7 | 7 | 6 | 5 | 6 | 7 | 7 | 5 | 7 | 7 | 6 | 6 | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 5 | 7 | 7 | 7 |
| | 2 | 0 | 2 | 7 | 4 | 2 | 2 | 2 | 7 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 |
| | 9 | 1 | 9 | 3 | 0 | 1 | 8 | 8 | 2 | 6 | 6 | 2 | 2 | 5 | 7 | 7 | 7 | 4 | 7 | 9 | 5 | 9 | 9 | 8 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 0 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 |

Skin +

Subcut Tiss, Fibroma

Subcut Tiss, Fibrosarcoma X

Musculoskeletal System

NONE

Nervous System

Brain

Respiratory System

Lung

+ +

Carcinoma, Metastatic, Tissue Nos

Special Senses System

Eye

+

Urinary System

Kidney

+ +

Sarcoma

+ + + + + + M +

Urinary Bladder

+ + + + + + M +

SYSTEMIC LESIONS

Multiple Organ

+ +

Leukemia Mononuclear

X X X X

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

Experiment Number: 92004-01
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)
Test Compound: NTP 91/92 diet study
CAS Number: DIET9192

Date Report Requested: 10/20/2014
Time Report Requested: 18:18:12
First Dose M/F: NA / NA
Lab: NIEHS

DAY ON TEST

F 344/N Rat Female
92F

ANIMAL ID

***TOTALS**

Alimentary System

| | |
|------------------------|----|
| Intestine Large, Cecum | 1 |
| Liver | 59 |
| Hepatocellular Adenoma | 1 |
| Mesentery | 2 |
| Pancreas | 57 |

Cardiovascular System

| | |
|-------|----|
| Heart | 59 |
|-------|----|

Endocrine System

| | |
|-------------------------|----|
| Adrenal Cortex | 59 |
| Adrenal Medulla | 58 |
| Pheochromocytoma Benign | 1 |
| Islets, Pancreatic | 57 |
| Parathyroid Gland | 37 |
| Pituitary Gland | 57 |
| Pars Distalis, Adenoma | 27 |
| Thyroid Gland | 56 |
| C Cell, Adenoma | 4 |
| C Cell, Carcinoma | 1 |

General Body System

NONE

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:12

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Female

92F

ANIMAL ID

***TOTALS**

Genital System

| | |
|----------------------------|----|
| Clitoral Gland | 7 |
| Adenoma | 4 |
| Fibroma | 1 |
| Squamous Cell Papilloma | 2 |
| Ovary | 59 |
| Leiomyoma | 1 |
| Uterus | 59 |
| Endometrium, Polyp Stromal | 5 |

Hematopoietic System

| | |
|-----------------------------------|----|
| Lymph Node, Mesenteric | 59 |
| Spleen | 59 |
| Carcinoma, Metastatic, Tissue Nos | 1 |
| Hemangiosarcoma | 1 |
| Thymus | 40 |

Integumentary System

| | |
|------------------------|----|
| Mammary Gland | 26 |
| Adenocarcinoma | 1 |
| Fibroadenoma | 18 |
| Fibroadenoma, Multiple | 4 |
| Inguinal, Fibroadenoma | 2 |
| Skin | 3 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 92004-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: NTP 91/92 diet study

CAS Number: DIET9192

Date Report Requested: 10/20/2014

Time Report Requested: 18:18:12

First Dose M/F: NA / NA

Lab: NIEHS

DAY ON TEST

F 344/N Rat Female

92F

ANIMAL ID

***TOTALS**

| | |
|---------------------------|---|
| Subcut Tiss, Fibroma | 1 |
| Subcut Tiss, Fibrosarcoma | 1 |

MUSCULOSKELETAL SYSTEM

NONE

NERVOUS SYSTEM

| | |
|-------|---|
| Brain | 1 |
|-------|---|

RESPIRATORY SYSTEM

| | |
|-----------------------------------|----|
| Lung | 59 |
| Carcinoma, Metastatic, Tissue Nos | 1 |

SPECIAL SENSES SYSTEM

| | |
|-----|---|
| Eye | 2 |
|-----|---|

URINARY SYSTEM

| | |
|-----------------|----|
| Kidney | 59 |
| Sarcoma | 1 |
| Urinary Bladder | 57 |

SYSTEMIC LESIONS

| | |
|----------------------|----|
| Multiple Organ | 59 |
| Leukemia Mononuclear | 13 |

**** END OF REPORT ****

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically